

5                                   **METHOD AND APPARATUS FOR**  
**PROTECTING AN ECHO CANCELLER AGAINST RANDOM TRANSITIONS**  
**FROM LINEAR TO NON-LINEAR ECHO PATHS**

10                                   **ABSTRACT OF THE DISCLOSURE**

          A method and apparatus is capable of detecting the presence of a non-linear echo path  
as well as transitions from non-linear echo path to linear echo path and vice versa.  
Additionally, when non-linear echo path is detected, the echo canceller (12) is configured to  
15 follow a prescribed logic routine that combats possible echo leak-through as a result of  
compromised cancellation due to non-linearity. This prescribed logic routine affords the  
echo canceller (12) protection against non-linear echo path by preserving an already  
converged state of the echo canceller (12) from possible divergence due to the occurrence of  
non- linearity in the echo path and thereby prevents echo leak-through that would occur due  
20 to divergence of the echo canceller (12).

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